## **ABSTRACT**

## DEVICE FOR IMAGE PROCESSING WITH RECOGNITION AND SELECTION OF LIGHT SOURCES

The invention relates to devices for processing images making it possible to identify, to process and to select discrete light sources present in a video image composed of pixels. The aim is the presentation, in real time, to a user of a processed image allowing better recognition of light sources in a weakly contrasted image. In aeronautical use, this device affords a landing aid by allowing better recognition of runway lamps in conditions of degraded visibility, in particular in foggy weather. The invention relies on three major principles:  $[\bullet]$  1) the main processing of images is performed only on a small number of pixels whose level is greater than a threshold;  $[\bullet]$  2) a likelihood estimator evaluates the probability of existence of sources in the image;  $[\bullet]$  3) the threshold is variable as a function of a certain number of parameters of the image.

## FIGURE 3

4